Subject: FW: Response to RFI

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Name/Email

A. Townsend Peterson

Affiliation/Organization

University of Kansas

City, State

Lawrence, Kansas

**Comment 1** Are there steps that agencies could take to grow existing and new markets related to the access and analysis of peer-reviewed publications that result from federally funded scientific research? How can policies for archiving publications and making them publically accessible be used to grow the economy and improve the productivity of the scientific enterprise? What are the relative costs and benefits of such policies? What type of access to these publications is required to maximize U.S. economic growth and improve the productivity of the American scientific enterprise?

- I am interpreting this question to focus on what federal agencies might do that would encourage markets related to an open access archive that federal action might create. I take it as a given that access to academic scholarship should be open access, and that the current closed-access system must come to an end, as lack of such access is closing off crucial avenues of insight and progress in research. I take this latter point as a given—and hope that those considering these comments will as well.
- As regards markets that could be developed or encouraged as a consequence of an open access world, clearly the most important one would consist of a new generation of journals that adopt a 'gold' level of access (i.e., free and open access to all papers published). Federal agencies can encourage such an 'industry' by means of subsidy grants that would assist such journals in getting off the ground, and up to the level of being indexed and accorded an impact factor. Once this status has been attained, the subsidy is no longer necessary, and permanent progress has been made towards establishing open access frameworks for academic scholarship. Such grants would be crucial because breaking into the high-end journal market will otherwise prove challenging for many open access journals. This shift is important because currently each university sends multiple millions of dollars 'out' to commercial interests to pay

for journal access. These funds leave the academic system, and frequently also leave the country (Springer, Cambridge, Oxford, Elsevier, Blackwell, etc.). A future system, in which access considerations are dealt with separately from profit margins, could potentially keep those same funds within academia in the USA, and thereby assist in making academia more solvent and self-sufficient.

**Comment 2** What specific steps can be taken to protect the intellectual property interests of publishers, scientists, Federal agencies, and other stakeholders involved with the publication and dissemination of peer-reviewed scholarly publications resulting from federally funded scientific research? Conversely, are there policies that should not be adopted with respect to public access to peer-reviewed scholarly publications so as not to undermine any intellectual property rights of publishers, scientists, Federal agencies, and other stakeholders?

I would emphasize the need for individuals to retain key rights to the work that were their intellectual products. That is, the current commercial system depends on publishers taking scientists' rights to their intellectual products in exchange for the admittedly expensive process of publication and distribution. The simple step of reserving key rights for authors makes an enormous contribution to the future of science, and yet has little or no effect on the solvency of the publishing industry. Quite simply, to publish, publishers don't need all the rights that they currently 'require' to be transferred to them.

**Comment 3** What are the pros and cons of centralized and decentralized approaches to managing public access to peer-reviewed scholarly publications that result from federally funded research in terms of interoperability, search, development of analytic tools, and other scientific and commercial opportunities? Are there reasons why a Federal agency (or agencies) should maintain custody of all published content, and are there ways that the government can ensure long-term stewardship if content is distributed across multiple private sources?

I am deeply concerned about the stewardship being distributed across multiple private sources. I can see clearly that there would result situations of limited or inconvenient access, even under a federal 'open access' mandate. The centralized model being tested in PubMed Central is an excellent model, and I have heard of no major drawbacks to this system. If it is not broken, why replace this system?

**Comment 4** Are there models or new ideas for public-private partnerships that take advantage of existing publisher archives and encourage innovation in accessibility and interoperability, while ensuring long-term stewardship of the results of federally funded research?

I think that the current system is an example of a public (i.e., academics) – private (i.e., publishers) partnership that has not worked well. Quite simply, the publishers have counted on enormous profit margins from publishing academic scholarship, to the point that they have lost sight of the mission of the endeavor. Forcing publishers NOT to force academics to give up copyright to journal-published scholarship would be a key step in fixing this broken system, and would make possible significant improvements in stewardship of the results of federally funded research.

Comment 5 What steps can be taken by Federal agencies, publishers, and/or scholarly and professional societies to encourage interoperable search, discovery, and analysis capacity across disciplines and archives? What are the minimum core metadata for scholarly publications that must be made available to the public to allow such capabilities? How should Federal agencies make certain that such minimum core metadata associated with peer-reviewed publications resulting from federally funded scientific research are publicly available to ensure that these publications can be easily found and linked to Federal science funding?

The minimum core metadata are well summarized in the Dublin Core that has been developed in the library community; these data can be supplemented lightly to standardize the information provided upon submission across agencies and repositories. Most important is the full-text searching capacities that one sees, for example, in Google Scholar. I believe that such open searching of full text is well within reach technologically, and will not require much in the way of new development efforts.

**Comment 6** How can Federal agencies that fund science maximize the benefit of public access policies to U.S. taxpayers, and their investment in the peer-reviewed literature, while minimizing burden and costs for stakeholders, including awardee institutions, scientists, publishers, Federal agencies, and libraries?

The example of PubMed Central has been excellent. It has provided access to much of the biomedical literature in recent years and at considerable savings of time and effort. It would seem that broadening this effort to all federally-funded research would yield parallel, and significant, benefits as well, at similarly low cost. In the long term, as described above, such changes will eventually permit an open access, free-of-cost system in which universities do not have to fork over millions of dollars yearly to support a commercial, for-profit system that benefits neither them, nor the general public that funds the research.

**Comment 7** Besides scholarly journal articles, should other types of peer-reviewed publications resulting from federally funded research, such as book chapters and conference proceedings, be covered by these public access policies?

Journal articles are a convenient place to start, because they do not involve profit or payment to the authors. In the longer term, however, I would love to see similar efforts in the realm of text books—text books represent a significant cost burden for university students, often far beyond what is necessary and prudent. In fact, in many cases, professors require their own students to purchase their own books, which—in my view at least—constitutes a massive conflict of interest. The text book question will—obviously—require considerable thought and consideration and discussion.

**Comment 8** What is the appropriate embargo period after publication before the public is granted free access to the full content of peer-reviewed scholarly publications resulting from federally funded research? Please describe the empirical basis for the recommended embargo period. Analyses that weigh public and private benefits and account for external market factors, such as competition, price changes, library budgets, and other factors, will be particularly useful. Are there evidence-based arguments that can be made that the delay period should be different for specific disciplines or types of publications?

I think that no embargo is most appropriate, at least in my own field. I make this suggestion based on the need for fast and flexible access to the entire scientific literature. Research is a tough endeavor if one is to remain current and not waste effort. Embargo periods act simply to delay the progress of research, and make the entire enterprise less effective. To my eye, this brake on science efficiency has significant costs associated with it, which justifies the idea of no embargoes.